GOVERNMENT OF INDIA
AGRICULTURE
LOK SABHA

STARRED QUESTION NO:198
ANSWERED ON:08.03.2000
HIGH YIELDING VARIETIES OF SEEDS
JAGDAMBI PRASAD YADAV

Will the Minister of AGRICULTURE be pleased to state:

(a) the details of the High Yielding Varieties (HYV) of seeds developed by the Indian Council of Agricultural Research (ICAR) during the last one year;

(b) whether HYV varieties of seeds of wheat and maize are being developed only by the foreign countries;

(c) if so, the reasons therefor; and

(d) the steps proposed to be taken by the Union Government to revitalise research activities to improve the quality of seeds in the country?

Answer

THE MINISTER OF AGRICULTURE (SHRI SUNDAR LAL PATWA)

(a) to (d): A statement is laid on the table of the Lok Sabha.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF THE STARRED QUESTION NO. 198 TO BE ANSWERE 8TH MARCH, 2000 IN THE LOK SABHA.

(a) The ICAR system has developed and released at the central level 78 high yielding varieties and hybrids of different crops during 1999. The details are given in Annexure I.

(b) No, Sir.

(c) Question does not arise.

(d) The research efforts on the development of high yielding inbred varieties and hybrids are intensified in different crops during the IX plan. In addition, mission mode programmes on hybrid research, development of transgenics for management of insects, gene pyramiding for rust resistance in wheat etc. have been launched during last year. To ensure quality seed of improved varieties, seed technological researches on the development of package of practices for seed production (viz. plant population, isolation distance, plant nutrition plant protection, synchronization of flowering), seed health, processing, storage and testing, and identification of areas/seasons suitable for seed production has been intensified. Also good quality, indented breeder seed of released varieties is produced to meet the national requirement.

ANNEXURE-I

DETAILS OF HIGH YIELDING VARIETIES AND HYBRIDS OF DIFFERENT CROPS DEVELOPED AND RELEASED 1999.

CROP VARIETY/HYB.	AREA OF ADAPTATION	SALIENT FEATURES
RICE		
VL Dhan 81	Valley and hilly areas of U.P., Himachal Pradesh and Meghalaya under Irrigated transplanted condition.	Tolerant to stem borer and leaf folder.
Pooja	Assam, Madhya Pradesh,	Tolerant to pests

	Orissa, Tripura and West Bengal for shallow water condition.	and diseases.
CSR-13	Haryana, Eastern & Central UP., Maharasthra, Gujarat, Kerala, Tamil Nadu and West Bengal for irrigated alkaline (sodic) land and and coastal saline soils.	Salt tolerant and disease tolerant.
CSR-27	Haryana, U.P., Maharashtra, Gujarat, Kerala, TamilNadu and West Bengal for saline and alkine soils.	Salt tolerant
WHEAT		
Malviya	Uttar Pradesh, Bihar, West Bengal under irrigated conditions.	Resistance against stripe rust leaf blight and loose smut.
Shresth	U.P., Punjab, Haryana and parts of Rajasthan.	Resistant against brown rust.
UP 2425	U.P., Punjab, Haryana and parts of Rajasthan.	Resistant to all three rusts.
Malav Shakti	M.P. Gujarat, Rajasthan and U.P.	Resistant to leaf and stem rust.
KRL-19	Punjab, Haryana, U.P., Rajasthan, H.P., Bihar, Orissa, West Bengal and North-Eastern states.	Resistant to salinity
PBW-396	Punjab, Haryana, U.P., Rajasthan and H.P.	Resistant to all three rusts.
PBW-443	Bihar, U.P., Orissa, West Bengal and North-Eastern states.	Resistant to all three rusts.
Malav Ratna	M.P., Gujarat, Rajasthan and U.P.	Resistant to all three rusts
K-9644	Maharashtra, Karnataka and Andhra Pradesh.	Resistant to rusts and leaf blight.
MAIZE		
Gaurav	Punjab, Uttar Pradesh, Haryana & Rajasthan under rainfed conditions.	Moderately resistant to major foliar and stalk diseases.

Vivek Hybrid-4	Gujarat, Rajasthan, Madhya Pradesh under rainfed conditions.	Tolerant to pests & diseases.
Prakash	Across the country under rainfed and irrigated conditions.	Tolerant to pests & disease.
PAC 738	Uttar Pradesh, Bihar, West Bengal, Andhra Pradesh, Tamil Nadu, Karnataka and Maharashtra.	Tolerant to stem borer, shootfly and abiotic stresses.
PAC 776	Punjab, Haryana, Uttar Pradesh, Rajasthan, Andhra Pradesh, Tamil Nadu, Karnataka and Maharashtra.	Tolerant to lodging and abiotic stresses.
32A09	Across the country except Bihar, West Bengal, Orissa and Eastern M.P.	Tolerant to borer & resistant to turcicum blight.
4642 (PRO 312)	Andhra Pradesh, Karnataka.	Highly tolerant to turcicum blight & stem borer.
4210 (PRO 316)	H.P., J&K, Hill of U.P., North Eastern states except Sikkim & Assam.	Tolerant to major insects pests.
SORGHUM		
CSH 17	Gujarat, M.P., Rajasthan and TamilNadu.	Resistant to lodging and shattering.
JKSH-22	Andhra Pradesh, Gujarat.	Tolerant to major pests and diseases.
CSH 18	Maharshtra, M.P., Rajastham, Gujarat & U.P.	Medium maturity, resistant to grain mold.
PEARL MILLET		
Pusa 605	Rajasthan, Uttar Pradesh, Gujarat, Haryana. Madhya Pradesh, Delhi.	Resistant to downey mildew.
JBV 2	Rajasthan, Haryana, Gujarat, Madhya Pradesh & U.P.	Resistant to downey mildew.

Nandi 32	Rajasthan, Haryana, Gujarat, Madhya Pradesh & U.P.	Resistant to downey mildew, ergot & smut.
Pusa-415	Rajasthan, Haryana, Gujarat, Madhya Pradesh & U.P.	Resistant to downey mildew.
Pusa Composite 334	Rajasthan, Haryana, Gujarat, Madhya Pradesh & U.P.	Resistant to downey mildew.
MLBH-504	Maharashtra, Andhra Pradesh & Karnataka.	Resistant to downey mildew and ergot.
Nandi-8	Gujarat and Madhya Pradesh	Drought tolerant.

FINGER MILLET

Bhairabi	Karnataka, Maharashtra, Madhya Pradesh and Orissa.	Resistant to neck blast, grass hopper.

FOXTAIL MILLET

PS4	All foxtail millet growing region	-

BARLEY

Harit (HBL 276)	Northern hill zone	Early maturing
RD-2552	Uttar Pradesh, Bihar, Orissa, Punjab, Haryana, Rajasthan and H.P.	-

FORAGES

Fodder Sorghum

Pant Chari-5	Uttar Pradesh, Haryana, Madhya Pradesh, Rajasthan, Gujarat, Maharashtra, Tamil Nadu and A.P.	Resistant to anthracnose zonate leaf spot and other foliar diseases.
Safed Moti	Across the Country	Multicut hybrid.

Fodder Guar

Bundel Guar-3	Arid and Semi-arid zones of the country.	-
CHICKPEA		
Pusa 1003	Eastern U.P., Bihar, West Bengal, Assam	Bold seeded, tolerant to wilt
JG 11	Southern Zone	Performs well as rainfed crop
DGD-72 (Pragati)	M.P., Gujarat, Maharashtra	Bold seeded, wilt resistant
Pusa Chamtkar	Punjab, Haryana, Rajasthan, Delhi, Western U.P.	
PIGEONPEA		
MA-3	H.P., MS, Gujarat	Moderately resistant to wilt and sterility, resistant to pod fly.
MUNGBEAN		
HUM-1	H.P., MS, Orissa, Gujarat, Kerala, Karnataka	Parts of U.P., A.P., TN, Resistant to YMV
URDBEAN		
TU 94-2	A.P., TN, Orissa, Kerala and Karnataka	Resistant to YMV and moderately resistant to powdery mildew
IPU 94-1	Punjab, Haryana, Delhi, Rajasthan and Western U.P., Eastern U.P., Bihar, West Bengal and Assam for kharif season	YMV resistant
KU 92-1	Eastern U.P., Bihar, West Bengal and Assam	YMV resistant
RBU 38	Eastern U.P., Bihar, West Bengal, Assam, MS, M.P., Gujarat for kharif cultivation	Resistant to Cercospora leaf spot
MOTHBEAN		
RMO 225	Moth growing areas of Rajasthan, Gujarat and Maharashtra	Drought tolerant
CAZRI Moth-1	North-western India	Drought tolerant

COWPEA

V 585	Punjab, Haryana, Rajasthan and U.P.	Resistant to lodging
UPC 9202	M.P., Maharashtra, Gujarat and parts of U.P.	-
GC-3	Suitable for arid and semi-arid areas	Early maturing with 21% protein, suitable for arid and semi-arid areas

HORSEGRAM

AK-21	All horsegram growing areas	Resistant to anthracnose

GUAR

RGC 986	All guar growing areas	-
RGC 1002	All guar growing areas	-
RCG-1003	All guar growing areas	31% gum and 25% protein

LENTIL

Jawahar Lentil-3	Rajasthan, MP, Maharashtra and parts of U.P.	-

FIELDPEA

Malviya Mattar -15	J.K., H.P., U.P. Hills, Eastern U.P., Bihar, Orissa, West Bengal NE States	-

FABABEAN

Vikrant	Throughout the country	Resistant to diseases

SESAME

JT 55	Eastern U.P., M.P., Bihar, Orissa, West Bengal and NE States	-

SUNFLOWER

Sideshwar (LS-11)	Gujarat, MP and MS under rainfed condition	-

LINSEED

LCK 9216 Irrigated conditions of UP, Bihar, West Bengal, Assam, Kota area of Rajasthan — Resistant to rust, powdery mildew, moderately to Alternaria blight and bud fly

LMH-62 Rainfed conditions of MP, MS, Rajasthan, Orissa, Bundelkhand region of U.P. — Resistant to rust, wilt and powdery mildew

GROUNDNUT

CSMG 884 UP, Rajasthan, Maharashtra — Resistant to early and late spot and bud necrosis

HNG 10 UP, Rajasthan, parts of M.P. — Semi spreading, medium bold kernel

RAPESEED-MUSTARD

VSL-5 U.P., Rajasthan -

SOYBEAN

MACS-450 M.S., Karnataka, TN, A.P. -

CASTOR

CGH 6 Gujarat, Rajasthan, Maharashtra -

COTTON

Desi Cotton Hybrid 1 Northern Zone (Punjab, Haryana, Rajasthan) -

JUTE

JRC-698 Suitable for white jute growing Belt of North Bengal and Bihar For Mid-March to early April Sowing in low to high lands with Early onset of North-West rain. — Has good fibre quality

JRO-8432 (CO-32) Suitable for whole tossa jute belt for mid-March to end of April sowing. — Has good fibre quality

POTATO

Kufri Pukhraj	North Indian Plains and pleateau regions.	Resistant to early blight, Moderately resistance to late blight.
Kufri Chipsona-1	North Indian Plains.	Resistant to late blight and suitable for processing (Chip making).
Kufri Chipsona-2	North Indian Plains	Resistant to late blight, tolerant to frost and suitable for processing (Chip making)
Giriraj	North Indian hills	Resistant to late blight
Kufri Anand	North Indian plains	Resistant to late blight and tolerant to frost

BRINJAL

Pusa Ankur	M.P., Maharashtra, Andhra Pradesh	Small round type.